




TR (Technical Report) / Ref. No :  Status : Closed Responsible :

Subject 2016 A61 Titan XD [CD50], engine stopped turning abruptly while driving on highway

General

Local Ref No.	-	Incident Country	United States	Claim No.	-
Model	A61	Model Year	2016	Taskforce Report	Yes
No Action Reason	-	Info Source	TSM-TSM Selected Item	Classification	-
Explanation	<u>Request</u> PI - Part Investigation <u>Priority & request comments</u> (No text)				
Issue Coverage	<input type="checkbox"/> 3MIS <input type="checkbox"/> 12MIS <input type="checkbox"/> Durability <input type="checkbox"/> QCS <input type="checkbox"/> IQS <input type="checkbox"/> Breakdown				

Vehicle Details

VIN	1N6BA1F430 	Plant Code	N-NNA (Canton)	Color Code	QAB
Model Variation	TXD	Sold Date	09/09/2016		
Prod Date	14/06/2016	Engine No.			
Engine Type	CD50	Transmission No.	-	Battery Pack No.	-
Transmission Type	A	DC Converter No.	-	On Board Charge No.	-
Inverter No.	-	E-PKB ECU No.	-		
PBW ECU No.	-	E-PKB ATR No.	-		
Electric Heater Unit No.	-				

Incident Details

Dealer No. - Name	13020-Tri+State Nissan	County/State	Virginia	Contact	-
City/Town	Winchester	Incident Mileage	19552 Miles		
Date of Incident	27/03/2017				

Customer Complaint Customer states while driving on the interstate the engine began to knock, Customer slowed down to get off highway and heard a loud bang, and engine shut off. The engine cranked but would not start. The vehicle was towed to the Dealer.

Details of Incident 1. How did the customer notice the incident?
The engine made a loud knocking sound and abruptly shut off while driving on the highway.

Incident Conditions 2. What are the incident conditions?
The engine would not restart after shutting off.

Field Investigation

3. Inspection done & result.
 -The only ECM DTC stored was a P-code for electronic throttle.
 -The technician observed that the front crank pulley did not turn at all when cranking the engine with the starter.
 -The customer had the first oil change performed at 10k miles at an aftermarket diesel repair facility. They used what appears to be a non-OEM oil filter (but the same "Fleetguard" filter, no "Cummins" label on the filter housing). This incident had occurred just before the 20k oil change, at 19,552 miles.
 -The engine oil level was in the normal range, and had a generally good appearance.
 -After removing the engine oil pan a large amount of metal debris was found in the oil pan, which had the appearance of lathe metal shaving debris, perhaps enough to fill a 1/4-cup measuring tool.
 -A dip was found in the debris which appears to be a piston pin circlip. This circlip was placed back into the engine oil pan, and all debris in the oil pan is as the technician found it.
 -The technician believes that the #8 piston wrist pin is visible, but very little sight lines to the area are limiting good observations. One photo tries to show this area.
 -When attempting to take off the torque converter bolts it became apparent that the ring gear had fractured into two pieces, along a radius about half-way from the center of the part diameter. See photos. (at the time of this report submission it is believed that the engine stopped suddenly from a (yet unknown) mechanical issue while the vehicle was traveling at a speed above 50 mph in 6th gear with a locked torque converter, and the flex plate sheared into two pieces, for these reasons).
 -The accessory drive belt tensioner was found broken into two parts along the pulley arm area of the tensioner. As with the ring gear, this is believed to be due to a sudden stop in crankshaft rotation at the time of this report submission.

Repair Action & Results

1. Repairs done.
 The long engine, turbochargers, torque converter, starter, belt tensioner, and gaskets were all replaced with new parts, and the original engine was collected and sent to FQC Smyrna TN.

2. Results.
 The repair resolved the incident.
 -All of the engine accessory parts were found in working order and not damaged after test driving the vehicle.
 -The transmission appeared not damaged by the incident at worked properly and as expected during the vehicle test drive.

Parts Details

Part No.	Part Name	Quantity Available
1 10102-EZ40A	ENGINE ASSY-BARE	1

Coding Block

PFP 10102-ENG ASSY-BARE Additional PFP - Tread Code 10-Powertrain
 DTC -
 f, s, s, s No
 CS Code AA-hard start / no restart (except HA) CT Code 01-broken / cracked (hard material)

Related Documents

Status	Responsible	Elapsed Days
Closed	-	-
Closed	-	-
Closed	-	-
Closed	-	-
Closed	-	-
Closed	-	-
Closed	-	-

Workflow & History

Date	Old Status	Old Responsible	Action	New Responsible	New Status	Comments
19/05/2017	Linked	Mark MULLINS_NA_NNA_PEI	(close by MREP)		Closed	-
27/04/2017	Public	Mark MULLINS_NA_NNA_PEI	(Link to Project from Proj	Mark MULLINS_NA_NNA_PEI	Linked	-
06/04/2017	Public	Ricky PARKER_NA_NNA_PEI	Reassign	Mark MULLINS_NA_NNA_PEI	Public	-
05/04/2017	Public	Jerry PUETZ_NA_NNA_PEI	Reassign	Ricky PARKER_NA_NNA_PEI	Public	-
05/04/2017	Awaiting Approval	Jerry PUETZ_NA_NNA_PEI	Publish	Mark MULLINS_NA_NNA_PEI	Public	-
05/04/2017	Draft	Rodger GETTLER_NA_NNA_PEI	Request Approval	Jerry PUETZ_NA_NNA_PEI	Awaiting Approval	-
04/04/2017	Initiated	Rodger GETTLER_NA_NNA_PEI	Save	Rodger GETTLER_NA_NNA_PEI	Draft	-

Project Member

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Comment